

Module title		Abbreviation
Overview Linear Algebra and Number Theory for Teaching Degree (German Gymnasium)		10-M-LNL-Ü-152-m01
Module coordinator		Module offered by
Dean of Studies Mathematik (Mathematics)		Institute of Mathematics
ECTS	Method of grading	Only after succ. compl. of module(s)
10	numerical grade	--
Duration	Module level	Other prerequisites
1 semester	undergraduate	--
Contents		
Basic notions and structures; vector spaces, linear maps and systems of linear equations; theory of matrices and determinants; eigenvalue theory; bilinear forms and Euclidean/unitary vector spaces; diagonalisability and Jordan normal form.		
Intended learning outcomes		
The student knows and masters the essential methods and proof techniques of linear algebra and is able to apply them independently. He/She has an overview over the fundamental notions and methods of linear algebra, knows about their algebraic and geometric background, is able to relate them to each other and can present them adequately in written and oral form.		
Courses (type, number of weekly contact hours, language – if other than German)		
V (6) + Ü (2)		
Method of assessment (type, scope, language – if other than German, examination offered – if not every semester, information on whether module is creditable for bonus)		
oral examination of one candidate each (20 to 40 minutes) Assessment will have reference to the contents of modules 10-M-LNL1 and 10-M-LNL2. Language of assessment: German and/or English		
Allocation of places		
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Additional information		
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Workload		
300 h		
Teaching cycle		
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Referred to in LPO I (examination regulations for teaching-degree programmes)		
§ 73 I Nr. 2		
Module appears in		
First state examination for the teaching degree Gymnasium Mathematics (2015)		